

WRIGHT AERONATICAL DIVISION
CURTISS-WRIGHT CORPORATION

MODELS: Wright Military Cyclone R-1300 Series

T.C. NUMBER: 5E-14

Model	R-1300-1A, -1B	R-1300-3, -3A, -3B, -3C, -3D
Type	5.625: 1 reduction gearing	Direct drive
Rating (impeller gear ratio):		
Maximum continuous, hp,		
rpm,		
in.Hg., at:	700-2400-37.0-7300	700-2400-38.0-5000
Critical pressure altitude (ft.)		
Sea level pressure		
altitude	700-2400-39.5-S.L.	700-2400-39.5-S.L.
Take-off (5 minutes), hp, rpm,		
in.Hg., at:		
Critical pressure altitude (ft.)	800-2600-42.5-5500	800-2600-42.5-3500
Sea level pressure		
altitude	800-2600-43.5-S.L.	800-2600-44.0-S.L.
Fuel (minimum grade aviation		
gasoline)	91/96	----
Bore and stroke, in.	6.125 x 6.312	----
Displacement, cu. in.	1301	----
Compression ratio	6.20: 1	----
Weight (dry), lbs.	1055	1150
C.G. location (dry):		
Forward of mounting pad		
centerline, in.	5.7	5.29
Above propeller shaft, in.	0.1	0.08
Propeller shaft, SAE No.	40	----
Crankshaft dampers (See		
NOTE 6)	3-1/2 order - front and rear	----
Carburetion	Bendix Stromberg PD9F1	Bendix Stromberg PD9G1
Ignition, dual	Bosch S7LU-2 magnetos	----
Timing, degrees BTC	20	----
Spark plugs	See NOTE 7	----
NOTES	1, 2, 5, 6, 7	1, 2, 3, 4, 5, 6, 7

NOTE 1. Maximum permissible temperatures:

Cylinder head (well type thermocouple)	475 degrees F. (500 degrees for takeoff)
Cylinder base	340 degrees F. (350 degrees for takeoff)
Oil inlet	205 degrees F.

NOTE 2. Fuel and oil pressure limits:

	<u>Maximum</u>	<u>Minimum</u>
Fuel pressure limit	23 psi	21 psi
Oil pressure limit	70 psi	60 psi

NOTE 3. The ratings and limitations of the R-1300-3 are applicable to helicopter installation and operation.

NOTE 4. The R-1300-3 incorporates special provisions for installation and operation with the propeller shaft inclined at an angle of approximately 40 degrees from horizontal, nose up.

NOTE 5. When incorporated in certificated aircraft, the engine nameplate should be stamped "FAA Spec. No. 5E-14." If there is no room for this information on the existing nameplate, such information may be stamped on a plain thin metal plate and attached beneath the existing plate by at least two of the mounting screws.

NOTE 6. The above models incorporate additional characteristics as follows:

<u>R-1300 Models</u>	<u>Characteristics</u>
-1A	Similar to certificated Wright 957C7BA1 engines, except has torsional crankshaft dampers only.
-1B	Similar to -1A except has both torsional and lateral dampers.
-3	Similar to certificated Wright 990C7BA1 engines, except has torsional dampers only.
-3A	Same as -3 but has 5° roller clutch impeller drive.
-3B	Same as -3A but has both torsional and lateral dampers.
-3C	Same as -3A but has 3° roller clutch impeller drive.
-3D	Same as -3B but has 3° roller clutch impeller drive.

NOTE 7. The following spark plugs are approved on these engines:

AC	172, 181, 272, 281
BG	RB19R-2, RB27R-1, RB39R
Champion	R119, R819, REA87N, REB87N, RHA87N, RHB87N